Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/875,081	FUJIWARA, YOKO
	Examiner	Art Unit	
	Gregory M. Desire	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *16 February 2006*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-11* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-8,10 and 11* is/are rejected.

7) ☒ Claim(s) *9* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *17 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1. ☒ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This application is responsive to communication filed 2/16/06.

Response to Amendment

2.   The examiner maintains the rejection filed 11/17/05.

Response to Arguments

3.   Applicant argues (remarks page 10, lines 12-14) Nothing in Ikeshoji shows,

teaches or suggests extracting areas corresponding to character images as claimed

This argument is not persuasive because it is the position of the examiner Ikeshoji does

teach extracting areas corresponding to character images (note fig. 1 30d, 34 in

connection with col. 3 lines 17-20, subtracting process obtaining characters, examiner

interprets subtracting process as extracting area corresponding to the character images

as claimed);

4.   Applicant argues (remarks page 10 lines 18-21) Nothing in Ikeshoji shows

teaches or suggests generating characters code data based on the extracted character

as claimed. From the specification fig 4, the examiner interprets generation character

code is a document that includes character codes, similar to Ikeshoji fig. 1, 30D. Also,

Abe is replied upon for this feature.

5.   Applicant argues (remarks page 10 last line and page 11 lines 1-4) nothing in

Ikeshoji shows or teaches changing the image data by replacing exacted areas with

background image and complementing the character image databased on the image

data around the character image data. This argument is not persuasive because it is

the position of the examiner that Ikeshoji does complements the character imaged

based on the image around the character image data, the examiner merely interpret the

claims to describe deleting character image to have a background image note

background image 20D.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-3, 7-8 and 10 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ikeshoji et al (6,088,479) in view of Abe et al (5,086,434).

Regarding claim 1 Ikeshoji discloses,

        Receiving image data for an image, the original image having character images

provided on a background image (note fig. 1 original drawing block 10D, has character

images (34) on a background image (20) in connection with col. 2 lines 49-50 and 43-

46, scanner receives original drawing having character image 34 on a background

image 20);

Extracting areas from the image data, which correspond to the character images

(note fig. 1 30d, 34 in connection with col. 3 lines 17-20, subtracting process obtaining

characters, examiner interprets as extracting area in correspondence to the character

images from image data);

Changing the image data by replacing the extract areas (note fig. 1, block 100

and 110, filters change the image data) with reference to the image data (note col. 3

lines 3-16, replaces brightness with reference to the image data), therein generating

changed image data representing an image, which is the same as the original image

except without the character image (note fig. 1 block 20D shows original image lacking

the replaced character image).

Storing the changed image data and the character data along with a relationship

between them (note col. 3 lines 21-23, lines cites background image and character

images are stored in an image file and from the specification page 7 lines 2-5 examiner

interprets the relationship between them is the image datum are included in a

document, thus combining the changed image data and the character data (note fig. 3

10D-1 in connection with col. 4 lines 5-11, the composer combines the background data

and character image data and stores the image data 10D1 in an image file examiner

interprets an output of an image file is a document).

Ikeshoji's system extracts areas in correspondence to character images and

stores character images along with changed image data. However, Ikeshoji does not

generate character code data from extracted data and store character code data. Abe

discloses character recognition by the CPU generating character code data (col. 7 lines

49-51), and storing character code data in the image memory (see fig. 1 block 25 and

col. 2 lines 59-68). Abe's character recognition discriminates between recognized and

unrecognized characters (note col. 7 lines 51-61). Therefore it would have been

obvious to one of ordinary skill in the art at the time the invention was made to generate

character code from the extracted characters in Ikeshoji. Encoding of characters by

character recognition, saves labor, thus reducing time required for communication.

Recognized and unrecognized characters are transmitted in code block, reducing the

number of blocks, thus reducing communication time (note col. 9 lines 5-21, of Abe).

Regarding claim 2 Ikeshoji discloses,

Complementing character image data based on image data around the character

image (examiner interprets this as deleting or removing character image consistent with

background image. The examiner uses the specification page 6 lines 11-13, col. 11

lines 21-22 and fig. 9 as reference. Ikeshoji removes the character image producing

only a background image as shown in fig.1 block 20d and col. 3 lines13-15).

Ikeshoji system extracts areas in correspondence to character images.

However, Ikeshoji does not convert character image data to character code data. Abe

discloses character recognition by the CPU converting character code data (col. 7 lines

49-51). Abe's character recognition discriminates between recognized and

unrecognized characters (note col. 7 lines 51-61). Therefore it would have been

obvious to one having ordinary skills in the art at the time of the invention was made to

convert character code from the extracted characters in Ikeshoji. Encoding of

characters by character recognition, saves labor, thus reduces time required for

communication. Recognized and unrecognized characters are transmitted in code

block, reducing the number of blocks. Thus reducing communication time (note col. 9

lines 5-21).

Regarding claim 3 Ikeshoji discloses,

Complementing the character image data based on image data around the

character image (examiner interprets complementing as deleting or removing character

image to be consistent with background image the examiner uses the specification page

6 lines 11-13, col. 11 lines 21-22 and fig. 9 as reference. A filter is used in the instant

application and Ikeshoji uses a filter to remove the character image producing only a

background image as shown in fig.1 block 20d and cited col. 3 lines13-15).

Storing the character data and the image data including the complemented

character image data along with the relationship between them (note col. 3 lines 21-23,

lines cite background image (complemented character image data and character

images are stored in an image file and from the specification page 7 lines 2-5 examiner

interprets the relationship between them is the image datum are included in a

document, thus combining the complemented image data and the character data (note

fig. 3 10D-1 in connection with col. 4 lines 5-11, the composer combines the

background data (complemented character image data) and character image data and

stores the image data with relationship between10D1 in an image file). The examiner

interprets an output of said image file is a document).

Ikeshoji system extracts areas in correspondence to character images and stores

character images along with complemented character image data. However, Ikeshoji

does not convert image data to character code data. Abe discloses character

recognition by the CPU generating character code data (col. 7 lines 49-51), and stores

character code data in the image memory (see fig. 1 block 25 and col. 2 lines 59-68).

Abe's character recognition discriminates between recognized and unrecognized

characters (note col. 7 lines 51-61). Therefore it would have been obvious to one

having ordinary skills in the art at the time of the invention was made to convert image

data to character code in Ikeshoji. Encoding of characters by character recognition,

saves labor, thus reduces time required for communication. Recognized and

unrecognized characters are transmitted in code block, reducing the number of blocks.

Thus reducing communication time (note col. 9 lines 5-21).

Regarding claim 7 Ikeshoji discloses,

An extractor (which read on subtractor, note fig. 1 block 120), which extracts

character image data in image data (which read on character and figure image fig. 1

block 30d and 34) with character image on a background image (note Ikeshoji fig. 1

block 120, in connection with col. 3 lines 17-23, subtracting process extracts character

image data in image data with character image on a background image (fig. 1 block 10);

A deleter (which reads on filter 110) which deletes the character images on the background image with reference to the image data (note Ikeshoji figure 1 blocks 110 and 20D in connection with col. 3 lines 13-15, the noise removal filter the examiner interprets as a deleter, the image data includes character images on a background image, the noise removal filter deletes the character images on the background image producing a background image) thereby generating changed image data representing an image, which is the same as the original image except for lacking the replaced character image (note fig. 1 block 20D shows original image lacking the replaced character image);

A synthesizer (which read on composer, fig. 3 block 300), which synthesizes the character data with the image data from which the character image is deleted (note fig. 3, 10D-1 in connection with col. 4 lines 5-11, the composer combines/synthesizes the character data with background data (image data from which the character image is deleted).

Ikeshoji system extracts character images and synthesizes character images along image data with deleted character data. However, Ikeshoji does not convert image data to character code data. Abe discloses character recognition by the CPU converting image data to character code data (col. 7 lines 49-51), and synthesizing character code data resulting in mixed data (col. 2 lines 59-68 and col. 5 lines 27-30). Abe's character recognition discriminates between recognized and unrecognized characters (note col. 7 lines 51-61). Therefore it would have been obvious to one having ordinary skills in the art at the time of the invention was made to convert image

data to character code in Ikeshoji. Encoding of characters by character recognition, saves labor, thus reduces time required for communication. Recognized and unrecognized characters are transmitted in code block, reducing the number of blocks. Thus reducing communication time (note col. 9 lines 5-21).

Regarding claim 8 Ikeshoji and Abe (434) discloses,

Wherein said deleter complements the image data at an area of character images on the background image according to image data of an ambient background image of the area (examiner interprets complementing as deleting or removing character image to be consistent with background image, examiner uses the specification page 6 lines 11-13, col. 11 lines 21-22 and fig. 9 for reference. A filter is used in the instant application to complement the image data and Ikeshoji also uses a filter to remove the character image producing only a background image as shown in fig.1 block 20d and cited col. 3 lines13-15).

8.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeshoji in view of Abe (434).
Regarding claim 10 Ikeshoji discloses,

An extractor that extracts character image data. However, Ikeshoji is silent teaching extracting character by character. Abe discloses extracting character image data character by character (note col. 8 lines 6-10, character recognition is performed character by character). Discriminating recognized and unrecognized characters

providing efficient transmission. Therefore it would have been obvious to a person of
ordinary skill in the art at the time of the invention was made to extract image data
character by character in the system of Ikeshoji. Efficient transmission would have
been a desirable feature in the synthesis art due to output functions and Abe recognizes
efficient transmission would be expected when extracting character by character in
Ikeshoji.

9.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeshoji et
al (6,088,479) in view of Abe et al (5,086,434) in further view of Melen (6,151,423).
Regarding apparatus claim 4 Ikeshoji discloses,

A reader (which reads on scanner col. 2 lines 49-50), which reads a document to
provide image data thereof (note col. 2 lines; 49-51, scanner reads original drawing
which read on documents creating image data 10D);

A corrector (which reads on filter fig. 1 block 110) which changes the character
image data to the same as a color of an image around the character image with
reference to the image data (note col. 5 line 41- col. 6 line 37 and col. 8 lines3-20,
examiner interprets changing the character image data to same as a color of an image
around the character image as replacing image data brightness of plurality of pixels
around it producing a background image, the examiner uses the specification page 6
lines 11-13, col. 11 lines 21-22 and fig. 9 as reference. A filter is used in the instant
application and Ikeshoji uses a filter to change the character image data to same as a
color image around the character image (note fig. 1D and cited col. 3 lines13-15, the

brightness relates to color col. 5 lines 35-65)) thereby generating changed image data

representing an image, which is the same as the original image except for lacking the

replaced character image (note fig. 1 block 20D shows original image lacking the

replaced character image); and

A storage device (image file by processor note col. 3 lines 22-23 and col. 4 lines

10-11), which stores the character code data and the image data including the

complemented character image data along with a relationship between them (note col.

3 lines 21-23, lines cite background image (complemented character image data) and

character images are stored. The specification page 7 lines 2-5, examiner interprets the

relationship between them as the character data and complemented image data

(background) being included in a document, thus the complemented image data and the

character data are combined (note fig. 3 10D-1 in connection with col. 4 lines 5-11, the

composer combines the background data (complemented character image data) and

character image data and stores the image data with relationship between10D1 in an

image file). The examiner interprets an output of said image file is a document).

Ikeshoji system extracts areas in correspondence to character images and stores

character images along with corrected image data. However, Ikeshoji does not

determine character code data from read document and store character code data. Abe

discloses character recognition by the CPU determining character code data (col. 7

lines 49-51), and stores character code data in the image memory (see fig. 1 block 25

and col. 2 lines 59-68). Abe's character recognition discriminates between recognized

and unrecognized characters (note col. 7 lines 51-61). Therefore it would have been

obvious to one having ordinary skills in the art at the time of the invention was made to

determine character code from the extracted characters in Ikeshoji. Encoding of

characters by character recognition, saves labor, thus reduces time required for

communication. Recognized and unrecognized characters are transmitted in code

block, reducing the number of blocks. Thus reducing communication time (note col. 9

lines 5-21).

Ikeshoji and Abe are silent determining data on a position in the character image

data converted to character code data in the image data. However, Melen includes an

acquiring device (which reads on pre-processor note fig. 2 block 225), which determines

position data on a position in the character image data converted to character code data

in the image data (note col. 4 lines 7-10 and fig. 3 block 302 in connection with col. 7

lines 19-27). Lines cite determining location/orientation from character image data,

which is converted to character code data. Therefore it would have been obvious to

one having ordinary skills in the art to include an acquiring device in the system of

Ikeshoji as evidenced by Melen. Ikeshoji presents character data from a document and

Melen in the same field of endeavor determines position data of character data

converted to character code without negatively impacting scanning efficiency, providing

correct orientation when scanning (note col. 2 lines 33-36).

10.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeshoji,

Abe (5,086,434) and Melen in further view of Abe et al (6,289,121).

Regarding claim 5 Ikeshoji, Abe (5,086,434) and Melen discloses,

An acquiring device, which determines data, based on the character image data

in correspondence to character image in the image data. Ikeshoji, Abe (434) and

Melen's device do not determine font and font size. However, Abe 9121) does

determine font (fig. 1 block 24) and font size (fig. 1, block 26). Therefore it would have

been obvious to one having ordinary skill in the art to determine font and font size in the

system of Ikeshoji, Abe (434) and Melen as evidenced by Abe (121). Ikeshoji, Abe

(434) and Melen scan data from a document and Abe (121) in the same field of

endeavor determines portion of a layout of a document using font and font size (note

col. 4 lines 49-55).

11.   Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeshoji

Abe (5,086,434) and Melen in further view of Koakutsu et al (6,285,459)

Regarding claim 6 Ikeshoji, Abe and Melen discloses,

Printer that performs printing functions. Ikeshoji, Abe and Melen is do not

generate print data for printing document images, based on the character code data,

position data and image data stored in a storage device. However Koakutsu teaches a

processor that generates print data (note col. 4 line 10), based on character code (col. 4

lines 12-13), position data (col. 4 lines 16-18 and image data stored (col. 4 lines 14-15).

Therefore it would have been obvious to one having ordinary skills in the art to include a

processor generating print data for printing document image based on character code

data, position data and image data stored, in the system of Ikeshoji, Abe and Melen as

evidenced by Koakutsu. Ikeshoji, Abe and Melen prints a synthesized output data and

Koakutsu in the same field of endeavor generates data based on character code data,

position data and image stored assisting in selective designation of subset image to

minimizing retransmission and providing a high throughput printing (note col. 2 lines 64-

67 and col. 3 lines 8-11).

12.   Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeshoji

and Abe (5,086,434) in further view of Johnson (5,212,739).

Regarding claim 11 Ikeshoji and Abe discloses.

An extractor, which extracts the character image data character by character by

character by character, and various methods (Abe col. 8 lines 5-7 and 13-16).

However, Ikeshoji and Abe do not specifically disclose an extractor, which extracts the

character image in the unit of word. Johnson discloses wherein an initial extraction of a

unit word of an image data is performed (note col. 2 lines 53 and fig.9 block 904).

Therefore it would have been obvious to a person of ordinary skill in the art at the time

of the invention was made to use a unit of word extractor as method of extracting in

Ikeshoji and Abe. Improving recognition of degraded characters of a document have

been a highly desirable feature in the character extraction art, due to larger segmented

portion and Johnson recognize that a system insensitive to common noise distortion

would be expected when word extractor (note fig. 2 lines 20-21) of Johnson is used in

the system of Ikeshoji and Abe.

Allowable Subject Matter

13.   Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15.   The following is a statement of reasons for the indication of allowable subject matter for claim 9.   The prior art fails to disclose, wherein a converter does not convert a character image data to character code data when an area of the character image data has color change. The comparison of the color components described in the specification pages 10 and 11, distinguishes over prior that would use binary values in detecting character error. This feature of a conditional converter, wherein the converter does not convert a character image to a character code when a color change is within a character in combination with the other features is not taught in the prior art.

Conclusion

14.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Gregory M. Desire whose telephone number is (571)

272-7449. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Gregory M. Desire
Examiner
Art Unit 2624

G.D.
April 26, 2006

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SUPERVISORY PATENT EXAMINER
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